

The opinion in support of the decision being entered today was *not* written for publication and is *not* binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* TERENCE MARTIN HINDS, JOHN JOSEPH GERAGHTY,  
and ROLF BASLER

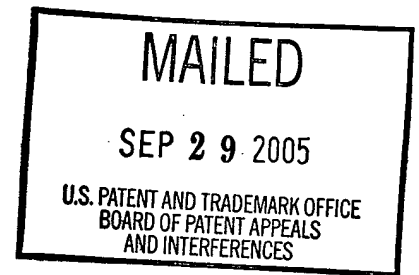
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Appeal No. 2005-1635  
Application No. 09/782,036

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ON BRIEF

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Before KIMLIN, PAK and JEFFREY T. SMITH, *Administrative Patent Judges*.

PAK, *Administrative Patent Judge*.

*DECISION ON APPEAL*

This is a decision on an appeal under 35 U.S. C. § 134 from the examiner's refusal to allow claims 1 through 5, 8, 10 through 23 and 25 through 32, which are all of the claims pending in the above-identified application. These claims were amended subsequent to the final Office action dated November 04, 2003.

*APPEALED SUBJECT MATTER*

The subject matter on appeal relates to a process for making a floor covering. See the specification, page 1. The process involves scattering thermoplastic powder onto a first substrate, such as a conveyor belt, to form a first coating layer; applying a second substrate, such as a fiber matt, over the first coating layer; scattering thermoplastic powder onto the second substrate to form a second coating layer; heating the coating layers to fuse them onto the second substrate; smoothing the coating layers with nipping rollers; and finally cooling the coating layers to form a laminated floor covering. See the specification, page 9. Further details of this appealed subject matter are recited in claims 1, 8, 13 and 32, which are reproduced below<sup>1</sup>:

1. A method for manufacturing a floor covering comprising the steps of:

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<sup>1</sup> On page 4 of the Brief, the appellants have grouped the claims on appeal as follows:

- i. Claims 1 through 5, 10 through 23 and 25 through 31;
- ii. Claim 8;
- iii. Claims 13 through 17, 19 and 20; and
- iv. Claim 32.

Therefore, for purpose of this appeal, we selected claims 1, 32, 8 and 13 as representative of all of the claims on appeal and determine the propriety of the examiner's rejections below based on these claims alone consistent with 37 CFR § 1.192(c)(7)(2003) and 37 CFR § 41.37(c)(i)(vii)(2004).

scattering powder, granules, or pellets of a thermoplastic material onto a first substrate to form a first coating;

applying a second substrate over the first coating;

scattering powder, granules or pellets of a thermoplastic material onto the second substrate, after said second substrate has been applied over the first coating, to form a second coating;

leading the second substrate between a belt of a low pressure press and said first substrate;

applying heat to fuse the coatings between the belt and the first substrate;

smoothing the fused coatings between a pair of nipping rollers to provide a layer of desired thickness; and

cooling the layer.

8. A method as claimed in claim 1 including a step of adjusting a gap between the nip rollers.

13. A method as claimed in claim 1 wherein the first coating is of a saturation material to form, on heating, a saturation layer.

32. A method as claimed in claim 1, wherein said step of scattering powder, granules or pellets onto the second substrate comprises scattering powder, granules or pellets of a thermoplastic material onto the second substrate, after said second substrate has been contacted with the first coating.

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#### *THE PRIOR ART*

The examiner relies on the following prior art references:

Bradshaw et al. (Bradshaw)	2,960,727	Nov. 22, 1960
Weaver et al. (Weaver)	3,385,722	May 28, 1968
Garbini et al (Garbini)	3,883,386	May 13, 1975
Brinkmann et al. (Brinkmann)	4,396,566	Aug. 02, 1983
Takeuchi et al. (Takeuchi)	4,510,201	Apr. 09, 1985
Schermutzki	4,743,187	May 10, 1988
Meyer	4,997,507	Mar. 05, 1991

The appellants' admission at page 1, line 9 to page 2, line 2 of the specification (hereinafter referred to as "the admitted prior art").

#### *THE REJECTIONS*

The claims on appeal stand rejected as follows:

- I. Claims 1 through 5, 10 through 23 and 25 through 32 under 35 U.S.C. § 103(a) as unpatentable over Brinkmann, Takeuchi and Schermutzki, and further in view of Weaver and/or Bradshaw;
- II. Claim 8 under 35 U.S.C. § 103(a) as unpatentable over Brinkmann, Takeuchi, Schermutzki, Meyer and Garbini, and further in view of Weaver and/or Bradshaw; and
- III. Claims 13 through 17, 19 and 20 under 35 U.S.C. § 103(a) as unpatentable over Brinkmann, Takeuchi, Schermutzki and the admitted prior art, and further in view of Weaver and/or Bradshaw.

*OPINION*

We have carefully reviewed the claims, specification, applied prior art, and the appellants' arguments for patentability. However, we concur with the examiner that the claimed subject matter as a whole would have been obvious to one of ordinary skill in the art within the meaning of Section 103 in view of the applied prior art. Accordingly, we will sustain the examiner's Section 103 rejections. Our reasons for these determinations follow.

The appellants have not challenged the examiner's findings at pages 4 and 5 of the Answer that:

Brinkmann et al[.] discloses a method for making sheeting using a twin belt press, which in the past has been employed for example for smoothing out of thin synthetic resin films. See col. 4[, ] lines 8-14. The sheeting may be used as a floor covering. See col. 2[, ] line 64. The method for making a sheet comprises:

applying thermoplastic resin in the form of particles such as shreds, crumbs, cuttings, pieces, chips or the like on the lower belt 11 of a "low pressure" twin belt press (dual belt press) to form a raw material layer;

preheating the thermoplastic particles of the raw material layer on the lower belt 11 using infrared radiators 19, 20;

heating and pressing the preheated raw material layer of thermoplastic particles between the upper belt and the lower belt of the twin belt press to form a thermoplastic sheet of welded (fused) particles; and

cooling and pressing the sheet.

See figure 1. Brinkmann et al[.] also teaches making a composite sheet by applying the thermoplastic particles on a textile sheet and pressing the thermoplastic into a composite sheet in the treatment zone. See column 3[, ] lines 60-68 and col. 7[, ] lines 52-58.

Nor have the appellants challenged the examiner's determination at pages 9 and 10 of the Answer that:

[I]t would have been obvious to use a smoothing roller in addition to the nip rollers for applying pressure in the belt press in view of (a) Brinkmann et al[.]'s teaching to apply heat and pressure in a belt press, (b) Bradshaw et al[.]'s teaching to apply heat and pressure in a belt press wherein nip rolls are used to apply pressure in the press and (c) Weaver's suggestion that a pair of rollers (heated roll 19, back roll 20 at low temperature) for forming a floor covering having a glossier surface may be used after applying heat and pressure.

With respect to claim 1, the appellants appear to focus only on forming a laminated floor covering by using a conveyor belt to coat both sides of a substrate with thermoplastic powder. See, e.g., the Brief, pages 5-8 and the Reply Brief, pages 4-5.

The dispositive question is, therefore, whether one of ordinary skill in the art would have been led to employ the method suggested by Brinkmann alone, or together with Weaver

and/or Bradshaw, to form a laminated floor covering by using a conveyor belt to coat both sides of a textile sheet with thermoplastic particles as required by the claims on appeal. On this record, we answer this question in the affirmative.

As indicated *supra*, Brinkmann, using its conveyor belt arrangement, produces a single-layer floor covering with scattered thermoplastic powder on a conveyor belt or a laminated floor covering with thermoplastic powder on a textile sheet. Although Brinkmann does not expressly teach a laminated floor covering having both sides of the textile sheet coated with thermoplastic powder, i.e., thermoplastic powder on and below the textile sheet on a conveyor belt, we find that Takeuchi teaches that laminated floor coverings can be produced by applying thermoplastic powder on one side of a textile sheet or both sides of a textile sheet. See Takeuchi, Figures 1 and 2, together column 7, lines 1-15, and column 10, lines 55-68 and column 3, lines 50-68. We find that Takeuchi teaches that thermoplastic powder can be coated onto a textile sheet via, *inter alia*, a conveyor belt method. See Examples 11, 12 and 13 at column 10, line 55 to column 11, line 11. We find that Takeuchi, for example, teaches (column 11, lines 7-11) that:

This sheet product is prepared by, for example, conducting powder coating of said composition onto the release paper or the steel belt, providing the core layer 1 on said composition, then forming those into a laminated sheet by heating at an increased pressure.

Given the above teachings, we determine that one of ordinary skill in the art would have been led to make the laminated floor coverings taught by Takeuchi, i.e., a textile sheet coated on one or both sides with thermoplastic particles, using the conveyor belt method suggested by Brinkmann alone, or together with Weaver and/or Bradshaw, motivated by a reasonable expectation of successfully obtaining laminated floor coverings having the advantageous properties taught by Brinkmann at column 2, lines 1-56 and Takeuchi at column 2, lines 43-47.<sup>2</sup>

The appellants argue (Brief, page 8) that:

With respect to claim 32, the Examiner asserts that "'contacting' the second substrate with the first coating would have been obvious in view of (a) Takeuchi et al[.]'s teaching to contact both sides of a textile sheet with thermoplastic material[.]" The Examiner's reliance on Takeuchi is misplaced. That is, although Takeuchi teaches a textile sheet having both sides thereof coated with thermoplastic, it does not provide any teaching or suggestion as to the order in which that sheet is made. On the other hand, as set forth in claim 32, the second sheet is applied over a

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<sup>2</sup> We determine that Schermutzki is redundant in that it also teaches applying thermoplastic powder on both sides of a textile sheet, such as a glass fiber mat, to form a laminated floor covering.



first substrate (having thereon a coating of thermoplastic granules or pellets) before that second sheet is scattered with powder, granules or pellets of a thermoplastic material. That is, although the end product of claim 32 may appear similar to that in Takeuchi, claim 32 sets forth a particular order in which the sheet is assembled. And that order is not taught or suggested by Takeuchi. [Footnote omitted.]

The appellants' argument is not well taken.

As indicated *supra*, Takeuchi not only teaches forming a laminated floor covering having a textile sheet coated on one or both sides, but also exemplifies coating the bottom side of a textile sheet, such as a glass fiber layer, with thermoplastic powder by providing thermoplastic powder on a steel conveyor belt and then placing the glass fiber layer (core layer) over the powder to produce a laminated sheet. As also indicated *supra*, Brinkmann teaches, *inter alia*, coating the top side of a textile sheet by providing a textile sheet over a conveyor belt and then placing thermoplastic powder on the textile sheet to form a laminated sheet. Thus, one of ordinary skill in the art interested in forming laminated floor coverings comprising thermoplastic powder coating on both sides of a textile sheet as discussed above would have been led to use the claimed sequential application of thermoplastic powder, a textile sheet and thermoplastic powder on a conveyor belt, motivated by a

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reasonable expectation of successfully coating or laminating both bottom and top sides of a textile sheet.

As to claims 8 and 13, the appellants have not disputed the examiner's determinations regarding obviousness of the limitations recited in claims 8 and 13 set forth at page 11 of the Answer. The appellants only argue that the additional prior art relied upon by the examiner, i.e., Meyer, Garbini and the admitted prior art, do not cure the deficiencies argued above. Therefore, for the factual findings set forth in the Answer and above, we are not persuaded that it would not have been obvious to arrive at the claimed subject matter as discussed *supra*.

#### CONCLUSION

Based on the totality of record, including due consideration of the appellants' arguments, we determine that the preponderance of evidence weighs most heavily in favor of obviousness within the meaning of 35 U.S.C. § 103.

Accordingly, we affirm the examiner's decision rejecting claims 1 through 5, 8, 10 through 23 and 25 through 32 under 35 U.S.C. § 103.

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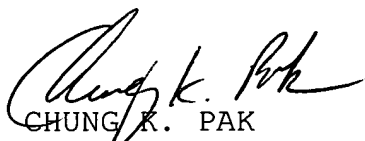
*TIME PERIOD FOR RESPONSE*

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR 1.136(a).

*AFFIRMED*

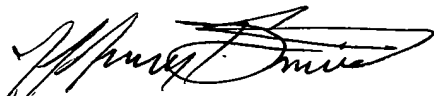


EDWARD C. KIMLIN )  
Administrative Patent Judge )



CHUNG K. PAK )  
Administrative Patent Judge )

BOARD OF PATENT  
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JEFFREY T. SMITH )  
Administrative Patent Judge )

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